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DOCTRINE FOR A SMALLER AIR FORCE: MALI AND THE
QUESTION OF UNIQUE AIR DOCTRINE

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Preface

When I saw on the list of research proposals a subject about doctrine, I thought that it will be the easiest subject for me, according to the number of books I had read. Starting my research, I realized that it was not as easy as I thought. Indeed it was a difficult subject. But it was exciting at the same time, because I am trying to describe a new concept.

I would like to thank you the selection panel for placing me in the doctrine course. I would like to especially thank my FRA (Faculty Research Advisor), Budd Jones for his help and his dependability.

I would also like to thank the librarians for their generous help.

Abstract

Most of the world's large Air Forces including those of the United States, Russia, and China, are independent services with their own organization and doctrine. There also quite a number of medium size Air Forces who are also independent and have doctrine distinct from the other military services of their nation. These include countries like Israel, Brazil, France and Great Britain. But there are so many smaller Air Forces that are neither fully independent or have their own distinct doctrine. This is the situation in the country of Mali.

It is not the size of the Air Force that determines the needs for independent doctrine. Rather, the need for independent doctrine lies in what the Air Force is asked to do for the country, what the Air Force can do given the resources it has, and what more it could do if its capabilities were fully realized and exploited. That is what this study seeks to show, using Mali as the focal point.

The research is divided into three sections. The first examines what smaller Air Force doctrine looks like and what kinds of missions and responsibilities these smaller Air Forces are tasked to perform. It focuses on Israel and North Korea. This section concludes with a look at the United States joint doctrine concerning Military Operations Other Than War (MOOTW) and how missions in this area might be applicable to many smaller Air Forces.

The second section looks at the situation of Mali Air Force and problems with its current doctrine. In Mali, air doctrine is not very consistent, nor is it well explained or

understood. This section also looks at the difficulties Mali Air Force faces in developing doctrine that is applicable to its situation, both in missions it can or should perform and its equipment. This section also examines the question of an independent Mali Air Force and whether it should remain so.

The final section of the paper discusses a possible framework for a new Mali Air Force doctrine and notes that the number of new missions and capabilities might better serve the interest of the country.

Chapter 1

Introduction

Doctrine is like a compass bearing; it gives us the general direction of our course. We may deviate from that course on occasion, but the heading provides a common purpose to all who travel along the way. This puts a grave burden on those who formulate doctrine, for a small error, even a minute deviation, in our compass bearing upon setting out, may place us many miles away from the target at the end of the flight. If those who distill doctrine from experience or devise it from logical inference in the abstract fail to exercise the utmost rigor in their thinking, the whole service suffers.

—I. B. Holley, Jr.

In theory, a nation develops its military doctrine because of specific military needs. These needs may include countering a threat against the country or to develop the operational methods to carry out a particular national strategy. Ideally, this means that the nation should analyze the need first, then make the doctrine. However, in Africa the political environment is complicated and constantly changing. In such a case, a nation may not recognize the need for a specific doctrine until it is already involved in a conflict that calls for a particular strategy and conduct of operations.

In 1974, Mali and Burkina fought each other. After the conflict, Mali re-designed its military doctrine and in 1976 created an independent Air Force. Mali military doctrine, including the Air Force portion, is largely based on the experiences gained from this conflict. Mali military doctrine is primarily army and ground focused, with Air Force

doctrine as only an attachment. In 1985, another boundary problem pitted Mali against Burkina. The experience of this conflict suggests the need for the Mali Air Force to revise its doctrine and make it more independent from the other Mali military doctrine. The question is what kind of doctrine a small air force such as Mali's should have. Research on this question is divided into three chapters. The first chapter discusses the doctrine of small air forces in North Korea and Israel, showing the strengths and weaknesses of each; what are the advantages and what problems are encountered. This chapter also discusses MOOTW doctrine of a large Air Force (United States) and how this might be applied in Mali. The second chapter describes the current Armed Forces doctrine of Mali and also deals with the necessity of an independent Air Force and an independent Air force doctrine in Mali. What are the problems with the common doctrine as it now exists? The third chapter is a suggested framework for a new doctrine for the Mali Air Force.

Chapter 2

North Korean and Israeli Doctrine and US MOOTW Doctrine

The North Korean and the Israeli Air Forces are both small but capable forces. They provide a clear contrast between the types of doctrine that can be applied to smaller Air Forces. North Korean Air Force doctrine is very rigid, focused mainly on supporting military operations against South Korea. On another hand Israeli Air Force doctrine is very flexible and allows the use of air forces for a wide variety of missions to support national security policy. The North Korean Air Force doctrine is the type to be avoid while that of Israel can be source of inspiration for small Air Force like Mali Air Force.

North Korean Air Force Doctrine

First of all let us discuss the Air Force doctrine of North Korea. In reflecting on the 1950-1953 war, the North Korean leaders have concluded that the first attempt at peninsular liberation was stymied for a number of reasons. These reasons included a lack of rear or reserve units, a small air force, military staffs lacking indoctrination in basic strategy, and soldiers insufficiently prepared in military and ideological matters. So they developed their own "revolutionary Warfare Strategy." The split between the former Soviet Union and China has contributed to the development of the Korean unique doctrine, called "the force."

They have synthesized the "best" of Russian (Soviet) and Chinese ideas of war, blending Russian conventional military art and Maoist commando/unconventional warfare into a military doctrine. One can discern the influence of Chinese and Russian operational concepts of war by looking at the organization and force disposition and the introduction of communist ideology in military thought.¹

Regarding their air doctrine, they follow Soviet air force doctrine within the limits of available equipment and training levels. This is especially true regarding the strict use of ground controllers to direct airborne intercepts and the extensive use of camouflage, concealment and deception.

Like the Russian Air Force, the Korean Air Force is equipped with dual-use jet fighters, which can be employed in both air defense and ground attack roles. Concerning the ground support mission, they do not train to what would be considered basic proficiency in the CAS (Close Air Support) role due to the North Korean emphasis on ground artillery fire. Their Air Force has a very direct and narrow focus:

They have four basic tenets of military strategy. The primary mission is to protect the security and integrity of North Korea. The secondary missions include tactical air support to the Army and the Navy, transportation and logistic support, and insertion of special operations forces. Organization and disposition: Interceptor, ground attack, transport, attack helicopter, and transport helicopter regiments are formed from 830 jet combat aircraft, about 300 helicopters, and 80,000 personnel. Most of the aircraft are 1950s and 1960s Russian technology.²

A major failure in North Korean doctrine is that technology is not a key element. The North Korean doctrine is elaborated for only one purpose: to take control of South Korea.

Given a situation of open warfare, they will commence military operations with a surprised attack on two fronts. They will employ Russian-style conventional shock attacks along the DMZ in concert with Chinese-influenced unconventional warfare operations in the rear. Finally, they will endeavor for a short war, possibly as little as seven days.³

North Korean Air Force doctrine is not a good mode because it is too rigid. There are no room for flexibility. Also, this doctrine is based on Soviet military doctrine which is focused on centralized planning and control and centralized execution. Smaller air forces need flexible doctrine that takes into account the many possible missions that the air force might be called upon to do and offers capabilities to accomplish those missions. Mali Air Force should avoid the North Korean type of doctrine.

Israeli Air Force Doctrine

The second small Air Force doctrine to examine is that of the Israelis'. Israel is a good choice because its doctrine is very different from that of North Korean and it works very well.

To win, you've got to take risks. How does a commander tell which risks are worth taking? He has a lot of conflicting inputs. But computers don't give the answer. Nor does intelligence. None of them gives the answer. In Israel, it's the combat experienced commander who's qualified to tell which risks are worth taking.⁴

All the Israeli Air Force doctrine is based on this concept of combat.

Modern Israel' since 1956, has to some extent imitated the operational aspect of the Blitzkrieg military format, with outstanding success in 1956 and 1967 and more limited success in 1973. The equipment has changed, but the method of combining the different types of forces for high tempo warfare has remained the same.

As one veteran Israeli pilot said after the June 1982 air campaign over Lebanon in response to American questions about how much doctrine the Israeli Air Force had written down, " Yes, we have books. But they are very thin."⁵

Another concept apparent in Israeli air doctrine is:

The offensive, defensive, or deterrent quality of a military is important because it affects states' perceptions of and reactions to one another.⁶

But it is difficult to apply deterrence facing to a type of enemy such as the Hezbollah in Lebanon or the Hamas in Gaza stripe? Thus, the Israeli Air Force doctrine focuses more on actual offensive and defensive operation than on deterrence.

Disintegrated grand strategies, in which political objectives and military doctrine are poorly reconciled, can lead to both war and defeat-jeopardizing the states survival. In peace or war, the fundamental question of political -military integration is whether the statesman has at hand the military instruments required to achieve those political goals deemed essential to the security of the state. It is also fair to ask whether the political goals in view fall within the state's military means and whether the political means selected unnecessarily inhibit the discretion of political authorities.⁷

Unfortunately, Israel failed in this area at the outbreak of the 1973 October War. In fact, political-military disintegration is found in Israel grand strategy between the 1967 and 1973 wars. Israeli military doctrine has for the most part been closely integrated with the political elements of the state's grand strategy, but in 1973, that integration was dangerously loose.

Before 1970 Israel and the Arab states were in an arms race that featured a mixture of new and obsolescent equipment, obtained mainly by using or exchanging resources that they could extract from their own economies. Roughly speaking, Israel was competing mainly with the Arab states, and vice versa. After 1970, this changed.

The Soviet pulled out the stops in their aid to Egypt and Syria, going so far as to set up and operate an air defense system for Egypt. Israel was now engaged in an arms competition with the Soviet Union. To run this race, it was necessary to acquire a superpower patron of her own, the United States. For the first three years after the Six Day War (June 1967), US military assistance to Israel ran to forty million dollars a year. In the next three years it ran to four hundred million dollars a year, or 28 per cent of Israel's total annual defense spending.⁸

One of the fundamental political objects of Israel's doctrine was to gain the support of at least the sympathy of one large or middle power. At the same time, a fundamental military principle was that the IDF (Israel Defense Forces) would undertake a preemptive attack if the security of the state is endangered. With the new dependence upon the United States for armaments, brought on by the closer relationship between the Arab states and the Soviet Union, "sympathy" was no longer sufficient; it would have to be support.

Would support be forthcoming if Israel launched a preemptive attack? This is the question that should have been asked and fully answered sometime between 1970 and 1973. Israel's dependence on the United States had been growing for three years. The relationship had been sufficiently troubled for both Dayan and Meir to realize, in the moment of crisis, that the tie might not stand the strain of an Israeli preemption. Evidence to support this conclusion existed long before the crisis. Fundamental changes in the military aspects of Israeli doctrine were in order.

Admittedly, Israeli doctrine did not stress preemption in the years prior to the Yom Kippur War. Instead, it had come to depend on the forty-eight hours of forewarning promised by Israeli Military Intelligence for mobilizing sufficient ground forces to wage an initially defensive battle.

It is not clear that the IDF made any special plans to cope with less than forty-eight hours' warning. The behavior of the Israeli Air Force on the eve of the war suggests that Israeli planners felt they could fall back on some sort of disruptive aerial preemption in the event of insufficient warning. Or perhaps Israeli self confidence was so high that the possibility of an Arab surprise was simply not entertained. In either case, the absence of the expected warning was a major source of Israeli troubles on October 6.¹⁰

Just as important as the absence of warning was the inability to use the air force effectively once it was known that war was imminent. The air force, as a capital -rather than labor-intensive fighting force, was Israel's ever-ready ace-in-the-hole. It was the insurance policy against the possibility of surprise, the cutting edge of any preemptive strike. Yet at this moment of crisis, a hidden obstacle suddenly emerged. There was apparently no way to use the air force that was consistent with the major political change in Israel's grand strategy, the increased dependence on the United States. Thus, on the morning of October 6, Israeli military doctrine could not provide an answer to the state's predicament.

A strength of Israeli military doctrine is that the failure serves to provoke a search for lessons learned to achieve military innovation consistent with the state's political goals. Analysts have discuss the various military failures of the Israeli Defense Forces at great length. A number of them were tactical and technical failures that were remedied in the first few days of the war itself.

When the test came, the Israeli Air Force was not in position to perform all of the missions expected of it. Quite the reverse. As noted above the Israeli Air Force preemption was opposed by the prime minister on political grounds. Dayan opposed it on political and military grounds. The Egyptian Air Force was based in underground hangars or concrete shelters, so hitting it on the ground would be impossible. A preemption seems to have been deemed unnecessary for knocking out the Syrian Air Force. Dayan argued that an air strike against Arab ground forces "could only hope to disrupt the Arab preparations for a few hours." Moreover, the IAF would be hitting "an alert enemy

protected by a lethal missile screen.” Potential losses might cripple the air force for the rest of the war.

These arguments would all hold true during a war as well. Dayan’s admission is quite remarkable. As Defense Minister, he had just spent 50 percent of his country’s scarce defense resources on forces that he suddenly deemed both politically and militarily useless. His air force seems to have presented him with preemptive strike plans that acknowledged little of the great political and strategic change affecting the country since 1967, when clearly a great deal had changed. Preemption was politically unacceptable and, even if ordered, apparently militarily ineffective. A military doctrine suitable for 1967 was forced to confront 1973 and was found wanting.

The IAF provides a measure of deterrence, does early warning and supply missions, supports the army, provides border patrol and control operations, transports military and civilian personnel, etc. The IAF does what needs to be done to support the policies of the Israeli government.

Mali has almost the same problems as Israel: political-military disintegration in grand strategy, operations other than war, stress of preemption and also the inability to use the air force effectively once it was known that the war was imminent (shown during Mali-Burkina conflict). And thus, the Israeli experience can help Mali to improve or create its doctrine.

American MOOTW doctrine

This portion will be focused on the United States Joint Doctrine for Military Operations Other Than War (MOOTW).

While we have historically focused on warfighting, our military profession is increasingly changing its focus to a complex array of military operations-other than war.¹²

Joint Pub 3-07 explains how military operations other than war (MOOTW) differ from large- scale, sustained combat operations. It addresses purpose, principles, type of operations and planning considerations. A doctrinal basis is provided for related joint tactics, techniques and procedures (JTTP) publications which address specific types of MOOTW.

Military operations other than war (MOOTW) can be applied to complement any combination of the other instruments of national power. To understand MOOTW, it is useful to understand how they differ from operations in war. Although MOOTW and war may often seem similar in action, "MOOTW focus on deterring war and promoting peace." War encompasses large-scale, sustained combat operations to achieved national objectives or to protect national interests. MOOTW are more sensitive to political considerations.

According to the *Joint Pub 3-07*, the United States MOOTW contributions to the attainment of national security objectives are deterrence, forward presence and crisis response. In addition, the types of MOOTW operations are: arms control, combating terrorism, DOD support to counterdrug operations, enforcement of sanctions/ maritime intercept operations, enforcing exclusion zones, ensuring freedom of navigation and overflight, humanitarian assistance, military support to civil authorities(MSCA), nation assistance/support to counterinsurgency, Noncombatant Evacuation Operations(NEO), Peace Operations(PO), Protection of shipping, Recovery Operations, Show of Forces Operations, Strikes and raids, Support to Insurgency.

As you can see these diverse types of MOOTW are just as important to the security of a nation as dropping bombs. Mali, with its problems of medical and food relief, transportation, communications, etc., should take in to account, for its doctrine, this important aspect of military operations

Notes

¹Colonel-General N. Lomov, On Soviet Military Doctrine," *Kommunist Vooruzhennykh Sil* (Communist of the Armed Forces), No. 10, May 1962, 32.

² Ibid., 47

³ Ibid., 52

⁴ General Ben-Nun, Israeli Air Force, 1984.

⁵ Ewig Mark, *Surprise from Zion: The 1982 Israeli invasion of Lebanon*, Cornell U Press, 1992, 72.

⁶ Posen Barry, *The sources of Military Doctrine*, Cornell U Press, 1984, 16.

⁷ Ibid., 24

⁸ Ewig Mark, *Surprise from Zion: The 1982 Israeli invasion of Lebanon*, Cornell U Press, 1992, 72.

¹⁰ Ibid., 83

¹² Joint Pub 3-07: *Joint Doctrine for Military Operation Other Than War*, 1995, 1.

Chapter 3

Mali Armed Forces Doctrine

This chapter describes the current Mali Armed Forces Doctrine. There are problems, but they can be solved. Part of the solution should include a new and unique doctrine for the Mali Air Force.

Description of Mali Armed Forces Doctrine

As mentioned earlier:

Doctrine is what is being taught, i.e., rules or procedures drawn by competent authority. Doctrines are precepts, guides to action, and suggested methods for solving problems or attaining desired results.¹

How is the current Mali Armed Forces Doctrine organized? It is one body of doctrine divided into four parts. These four parts are the overall organization, Army, Air Force, "gendarmerie" (Special forces).

The first part describes the organization of the Armed Forces with the Department of Defense on the top, below is the Joint staff. Under the Joint Staff, are the Army, the Air Force, the "Gendarmerie" and the supporting services such as Logistic, Health, Clothing and Housing.

The second part describe the organization of the Army with the Chief of Staff. Under the Chief of Staff are the Military Regions, then the Corps of Army, the Brigade, the

Regiment, the Battalion, the Company, the Section, the Group. The Army's mission is primarily defensive, defend the territorial boundaries of Mali. The doctrine is based on the concept of defense, but offense operations will be used if necessary to secure the boundaries.

The Army doctrine is based on the French doctrine of "La Guerre Revolutionnaire." The foundation of the doctrine of "la Guerre Revolutionnaire" was built upon two significant assumptions made by the theorists to give purpose to their doctrine and to explain the new type of warfare facing them in France's colonies.²

This doctrine was modified slightly based on the experience of the first conflict of 1974 to fit Mali's unique circumstance.

The struggle for control of the population occurs in two phases. The first phase is entails the mostly defensive phase where the forces of order recognize and prepare for hostilities. The second phase, involves the government's development of an offensive and military stance in order to rid the territory of guerrillas. The first phase emphasizes constant vigil and the political counteraction of the forces of order.³

The third part of Mali military doctrine describes the organization of the Air Force. Under the staff are the Aerial Zones, the Bases, the Wings, the Squadrons, and the Units. According to this doctrine, the Air Force must defend the territory through air superiority operations, provide close air and airborne support for the Army and is responsible for search and rescue for the civilian aviation. The foundation for the Air Force portion of the military doctrine is based on three different foreign doctrines. The Russian doctrine for air superiority, the French doctrine for the close air support, and American doctrine for transport.

The fourth part of Mali military doctrine describes the organization of the "Gendarmerie." Under the staff, the squadron, the company, and the Unit. The role of the Gendarmerie is to provide help for military and police. In fact, this special force is

equipped and trained to be part of the armed forces in case of conflict, but their day to day duty is to assure (as the police), the security of the population.

The Armed Forces doctrine describes in fact, how these three major components work together in a joint environment along with the support of the other service agencies (Logistic, Health, Communication etc.,). This doctrine is useful for a joint operation. All the forces are trained to fight together (except the gendarmerie during its police duty). Despite the fact that we have an independent Army, an independent Air Force, an independent Gendarmerie, all the force employment is managed by the Joint Staff.

But, this Armed forces doctrine is a force employment doctrine, it does not work well in peacetime. In particular the Mali Air Force doctrine is an odd collection of parts from several different air forces that is blended into a general military doctrine. Like North Korea, Mali has received material from many countries including France, the United States, Russia, China, and England: Like North Korea, Mali personnel are trained according to the doctrine of these different countries. Like Korea, Mali did not create a specific doctrine based on its experience, and its own environment. Mali did not follow the three- phase effort in developing doctrine as suggested by retired Air Force General, I. B Holley.

The first phase is assembling the objective information required from a wide variety of sources. The second phase is the formulation phase during which the doctrinal generalizations are developed. This phase also includes a trial balloon stage where draft statements are circulated to a broad audience in order to secure feedback. After evaluating the feedback and rethinking the proposed doctrine, we are ready for the final phase- dissemination....Doctrine must evolve out of the experience of all⁴

Thus, like Korea, the Mali doctrine does not work very well. Mali has a lot of material from Soviet, and personnel trained in that country. Before the end of the cold

war it was easy to get material from Russia, but that has changed. From the Soviet perspective the issue of the size of the Armed Forces is obvious.

Colonel General Professor N.A.Lomov displays consistency in his 1962 and 1963 positions on this question, arguing "that even under conditions of nuclear warfare, mass, multimillion man armies will be needed"⁵

Mali has very limited resources, consequently it has a small Armed Forces and thus cannot appropriately apply the borrowed Soviet (now Russian) doctrine.

Without a unique Mali Air Force doctrine, there are two different types of doctrine mixed together and this can be dangerous. Mali is applying the Russian fighter doctrine based on the ground control radar. The ground radar assistance is necessary in order to achieve an interception. The pilot has to follow the instruction of the ground radar controller. The consequence direct of this doctrine is that, in case of failure of the ground radar the fighters stay on the ground. On another hand, fighter doctrine in the Western countries give more freedom to the pilot who is not absolutely dependent on the ground radar control in order to achieve an interception. Can you imagine one Squadron with one part depending in 100% on the ground radar system, and the other part can achieve its mission without the assistance of this system? With the end of Russian aid and Mali closer military ties to the West, there is a real possibility that it will have even more a mix of different doctrines.

Another example can be the Air Defense System. The Russian system is based on a heavy system called "Pechora" which need three components to defend one single point. Each group needs at least five to six days to be installed, and is constituted with ten to twelve trucks. On another hand, the Western system is based on a light system, easy to

move. Again can you imagine a Group of Air Defense with these two systems and without a unique and specified doctrine (not a broad in a general Armed Forces doctrine)?

Another element is that Mali is deeply involved in MOOTW in Africa (Liberia, Rwanda, Zaire, Burundi, Central Africa, Western Sahara etc.,). Unfortunately, the Armed forces doctrine does not provide much guidance in this new environment and most of these missions need Air Force support.

Necessity independent Air Force and doctrine

The Mali Air Force was created the 6th February 1976. Does in fact Mali need an independent Air Force? Why would a country with such limited resources create a new service? There are reasons.

Mali is a large country in Africa (1,240,000 square kilometers), with seven neighbors (Algeria, Burkina, Cote d'Ivoire, Guinea, Senegal, Niger and Mauritania). It's a landlocked country, with no direct access to the sea. The country is divided in three natural region. The South is forest, the Central part is savanna, and the North is desert (about 45% of the country). Like Napoleon said "the policy of a country lies in its geography." So, Mali can expect only on the road, the railroad, the river and the air means of transportation.

In the South and the Central part, there is a useful road network (highway, normal roads etc.,). The railroads are only in the South. There are two big rivers (Niger and Senegal), but this means of transportation is not permanent (only seven months per year). For much of the country, air transportation is the only efficient means of transportation.

Unfortunately, there is not much commercial airline development inside Mali because the return on this investment will not be good enough to justify the cost.

Transportation is the essence of civilization.

The more rapid the intercourse between people, the more highly what we call "civilization" will be developed. Nothing throttles a people's development more than lack of transportation.⁶

The whole means of transportation on the surface of the ground or water is confined to places that are easy to access over these elements; in the case of water: depth arbors, indentations along the coasts, and navigable rivers. In the case of land; where it is possible to build roads and railroads. Mali is about 40% is desert (with resources), with a very few roads and no railroads. No condition of this kind confronts aircraft as the air is a common medium all over the world. Aerial photographs can portray model farms, feeding places for animals, and shelters.

A great deal can be done by the air force in the elimination of insect pests, particularly locusts (example of the Philippine Islands.). Aircraft can be used extensively for the medical control in certain places (example of the snake bites in Thailand). "Where there is no vision the people perish.." This old Biblical quotation is more applicable to the development of aviation and air power than to any other undertaking. In Mali, we are at the turning of the ways in the development of our air power and the people, who are the judges of what should be done, should weigh the evidence on the subject carefully. In order to be successful in anything, it's necessary to concentrate one's mind, one's time and one's money on it in such a way as to get the greatest good with the least effort.

At this juncture, the Mali is faced with the alternative of keeping the old concept of the armed forces trained and equipped for a hypothetical war, or gets a “new vision” about the armed forces according to its own unique strategic environment.

The German treated change with caution and respect. Once they decided that a tactical change was necessary, they pursued it with the knowledge that several factors had to be changed in order for the doctrinal change to have the desired effect....In developing doctrine, the Germans always considered another critical factor, the enemy⁷

The enemy of Mali is not the countries on the North, the South, the West or the East border, but the poverty. The Air Force is very different from either armies or navies in its economic aspect. Every military airplane can be used in time of peace for some useful undertaking not necessary connected with the war. Mali signed a memorandum of non aggression with its neighbors. What can a tank (of the Army) can do in order to solve this problem of transportation? not a lot.

The main cause of the aborted rebellion in Mali in 1990 was the difference of development between the Northern and Southern portions of the country. The principal element of development is the transportation. With the lack of communication, the goods cannot leave the South for the North and the population of the North became the “forgotten of the Nation.” Fortunately the Air force with its capabilities of lift “save” the Nation.

How can we manage all these useful operations without “an officially accepted and scientifically-based views within the state and the armed forces”? We must keep and improve the joint doctrine but we must create an “Independent Air Force doctrine.” What will this Independent Air Force Doctrine will look like?

Chapter 4

Suggested framework for Mali Air Force Doctrine

This chapter is a suggested framework for a new doctrine for the Mali Air Force.

At the heart of warfare lies doctrine. It represents the central beliefs for waging war in order to achieve victory. Doctrine is of the mind, a network of faith and knowledge reinforced by experience which lays the pattern for the utilization of men, equipment, and tactics. It is the building material for strategy. It is fundamental to sound judgment...⁸

What kind of doctrine does Mali need to start? A basic doctrine or an operational doctrine or both? According to *Air Power Journal*, doctrine that belongs to basic or operational, was developed before the definition that best describes it came into general use. First, it is necessary to establish exactly what is meant by these terms, and to show that doctrine developed prior to the establishment of these definitions does in fact conform to them. According to Frank Futrell, the term basic doctrine appeared in 1940, when it was applied by the Army Air Forces (AAF) to *Field Manual (FM) 1-5, employment of the Aviation of the Army*.

It stated that basic doctrine “establishes fundamental principles that describe and guide the proper use of aerospace forces in war. Basic doctrine, the foundation of all aerospace doctrine, provides broad, enduring guidance which should be used when deciding how Air Force forces should be organized, trained, equipped, employed, and sustained. Basic doctrine is the cornerstone and provides the framework from which the Air Force develops operational and tactical doctrine.”⁹

Operational doctrine as a term appears later than the basic doctrine, according to an article in the Winter 1995 *Air Power Journal* . The article added that in the 1930s, when airmen began to try to write air doctrine, they had no definition of the term operational in the modern sense of that expression. One of the earliest uses of the term was postwar and meant that “the activity is in operation” in the sense of ongoing.

In the modern sense, operational doctrine establishes principles that guide the use of aerospace forces in campaigns and major operations. It examines relationships among objectives, forces, environments, and actions to ensure that aerospace operations contribute to achieving assigned objectives.¹⁰

Mali should start with a basic Air Force doctrine. This doctrine should be based on the strategic needs of the nation. Once the strategic role of the Air Force is determined, it remains to be determined whether the national economy can support a fleet capable of meeting those needs. Mali should try to base this doctrine on some area of the Israeli Air Force doctrines such as innovation, flexibility etc.,. It should avoid the failure of Israeli doctrine which is the political-military disintegration found in Israeli grand strategy between the 1967 and 1973 wars. Despite the fact that Mali has material from different countries, it should also avoid the type of North Korean doctrine which is a mix of according to the material. Gen. Henry H. (“Hap”) Arnold said at the end of the war that

any Air Force which does not keep its doctrines ahead of its equipment, and its vision far into the future, can only delude the nation into a false sense of security.¹¹

The following is a suggested framework. Mali Air Force Doctrine should be divided in three parts: Preparation of the Air Force for war; Employment of the Air Force; and MOOTW.

PART I: Preparation of the Air Force for war.

This part should contained the organization of the Air Force, the training of the Air Force and the equipment of the Air Force.

The organization of the Air Force will state this necessity: to meet the wartime effectiveness, to make full, effective, and coordinated use of its total force, to exploit the speed, range, flexibility, precision, lethality and versatility of air power, to get an effective harmony between people and material.

The training of Air Force should emphasized the importance of human factor, the evaluation of the training, standardization of the training (despite the basic training in different countries), for all level of war including MOOTW, and the importance of professional military education.

The equipment of the Air Force will explain the necessity for the Air Force to get equipment which are congruent with the nation needs, to maximize the Air Force capabilities. According to the limited resources of the country, the Air Force needs equipment which can be useful in war or peacetime, and also which can be sustain easily (gas, price of spare parts).

PART II: Employment of the Air Force.

This part should contained the airmindedness, the role and missions of the Air Force, the tenets and principles of war.

The study of aerospace warfare leads to a particular expertise and a distinct point of view that Gen. Henry H. ("Hap") Arnold termed "airmindedness."

Airmen should understand, honor, and apply the various useful views of war resulting from the different operating environments within the profession of arms.¹²

The first role should be the control of the air. One important role of the Air Force is to gain air superiority. This permits air and surface forces to operate more effectively and denies these advantages to the enemy. The mission related to this role is counter air. In order to achieve sufficient air control, offensive counter air actions are necessary. These offensive actions should include attacks of the enemy command and control systems, bases, ground air defense systems.

The second role can be the force application. The missions connected to this role, are strategic attack, interdiction and close air support. Strategic attack can permit to attack the enemy's center of gravity, make at times important contributions in gaining a war's objectives.

Interdiction disrupts, delays, or destroys an enemy's military potential before it can be used against friendly forces. To achieve efficiencies and enhance effectiveness, the air component commander should control all forces performing interdiction with surface force operations to achieve the theater commander's objectives.

Interdiction can have effects on the tactical, operational or strategic level. Close air support will be apply to provide direct support to friendly forces in contact. Close air support needs plannification and coordination in order to reduce the risk of friendly casualties¹³.

The third role can be force enhancement. This role is connected to the missions of airlift, surveillance and reconnaissance, and special operations. These missions are vital to air and surface campaigns. Facing to a limitation of time, airlift can be the best way of transportation.

Surveillance must be designed to provide warning of enemy initiatives and threats and to detect changes in enemy activities. Reconnaissance must be able to respond to surveillance and intelligence elements to gain information of particular importance. Mostly, Air Force special operations is an integral part of unconventional warfare.¹⁴

The fourth role is the force support. This role is connected to the missions of base operability and defense, logistics, and combat support. The first target of the enemy air power is to destroy the surface bases. And thus it's important to defend these bases.

Logistical capabilities must be designed to survive and operate under attack; that is, they must be designed for combat effectiveness, not peacetime efficiency. The combat support is very important and can affect the entire operations.¹⁵

The tenets describe how air power can be used to achieve military objectives. These tenets can be centralized control/ decentralized execution, flexibility/versatility and priority.

The principles of war can be objective, offensive, economy of force, surprise and simplicity.

Objective is "direct military operations toward a defined and attainable objective that contributes to strategic, operational and tactical aims." Offensive is "act rather than react and dictate the time, place, purpose, scope, intensity, and pace of operations. The initiative must be seized, retained, and fully exploited." Economy of force is "create usable mass by using minimum combat power on secondary objectives. Make the fullest use of all forces available." Surprise is "strike the enemy at a time or place or in a manner for which he is unprepared." Simplicity is "avoid unnecessary complexity in preparing, planning, and conducting military operations."¹⁶

PART III: Military Operations Other Than War.

This part should contained the purpose, the principles, the types and planning for MOOTW. This MOOTW part is very important since Mali is involved in peacekeeping in

Liberia, in Angola, in Rwanda, in Zaire, in Burundi, in Western Sahara, in Central Africa Republic.

The purpose should explain the objectives of the MOOTW part, which is to provide general guidance for military forces.

The principles of MOOTW can be objective, security, legitimacy.

The types of MOOTW can be the transportation of population or resources within the country, protection of the crop and environment, humanitarian assistance, noncombatant evacuation operations (NEO), peace operations.

With the lack of transportation, airlift can be useful by transporting people and resources from the South to the North.

Air Force can help to spread products in the crop, to kill the bugs. It can be also used to monitor the moving of the elephant and other wild animals in the country.

In the case of humanitarian assistance, it can relieve or reduce the results of natural or manmade disasters or other endemic conditions inside the country or outside. These operations should be limited in scope and duration. Mali can do these operations alone or associated with a multinational forces.

Air force can be task to evacuate Mali citizens in a foreign country, in the case of noncombatant evacuation operations (NEO).

The last but not the least operations are the Peace Operations.

Peace Operations are military operations to support diplomatic efforts to reach a long term political settlement and categorized as peacekeeping operations (PKO) and peace enforcement operations. Peace Operations are conducted mostly in conjunction with the various diplomatic activities necessary to secure a negotiated truce and resolve the conflict.

Peacekeeping Operations can be defined as military operations undertaken with the consent of all major parties to a dispute, designed to monitor and facilitate implementation of an agreement and support diplomatic efforts to reach a long term political settlement.

Peace Enforcement Operations are the application of military force, or threat of its use, normally pursuant to international authorization, to compel compliance with resolutions or sanctions designed to maintain or restore peace or order.

Peacemaking is the process of diplomacy, mediation, negotiation, or other forms of peaceful settlements that arranges an end to a dispute, and resolves issues that lead to conflict.¹⁷

Peace building consists of post-conflict actions, predominantly diplomatic and economic, that strengthen and rebuild governmental infrastructure and institutions in order to avoid a relapse into conflict.

In the planning stage some key factors should be considered:

a) Intelligence and information gathering. Human intelligence provide the most useful source of information (Mali has few sources of intelligence). The intelligence should be focus on understanding the political, cultural and economic factors that affect the situation. If intelligence can be used for peace enforcement operations and other, the term “information gathering” should be used in MOOTW involving NGOs and mostly in peace keeping because peace keepers must be neutral and impartial.

b) Multinational operations. The key elements to consider are:

- Military capabilities and training
- Political considerations
- Equipment interoperability
- Logistic Support System Coordination
- Language Barriers
- Cultural Backgrounds.

c) Command and control. Flexibility must be the key word, should be flexible in modifying standard arrangements to meet specific requirements of each situation and

promote unity of effort. Also, interoperability of communications systems is critical to the success of the operation.

d) Public Affairs. Public affairs plans should provide open and independent reporting. Media reporting influences public opinion, which may affect the perceived legitimacy of an operation and ultimately influence the success or failure of the operation. Public affairs plans must also anticipate and pre-plan response to possibly inaccurate media analysis and promulgation of disinformation and misinformation.

e) Civil Affairs (CA). CA capabilities are normally tailored to support particular operational requirements. It can also provide expertise on factors which directly affect military operations to include: culture, social structure, economic systems, language, and host-nation support capabilities

f) Psychological Operations.

Military PSYOP constitute a planned, systematic process of conveying messages to and influencing selected target groups. The commander of these operations should be aware that successful MOOTW may hinge on direct control of or direct influence over the operational area mediums of mass communication (radio and television).¹⁸

g) Coordination. Coordination is very important, the commander should be prepared to coordinate civilian and military actions. The best example can be humanitarian assistance, the commander should coordinate the NGOs actions and the military actions.

h) Legal Requirements. In addition to traditional skills necessary in military justice, legal personnel may require expertise in area such as refugees, displaced and detained civilian, fiscal law, rules of engagement, civil affairs, international law and agreement etc.,.

i) Logistics. logistics may precede other military forces or may be the only forces deployed. Early mission analysis must also consider transportation requirements (the

status of the airfields). Sometimes, additional support forces may be required to build supporting infrastructure. Also procedures must be established to coordinate movement requirements and airfield slot times with other participants in the operation.

j) Medical Operations. Rapid and early integration of preventive medicine units and practices is perhaps the most important medical operations that must be planned. When planning for MOOTW, the possibility to threat the host nation citizens or Mali military personnel must be considered.

k) Transition from Wartime operations to MOOTW. The Post-conflict Activities should include:

- Transition to civil authorities
- Support to truce negotiations
- civil affairs support to reestablish a civil government
- Psychological operations to foster continued peaceful relations
- Continuing logistic support from engineering and transportation units

l) Termination of Operations. This part should include:

- Transition to civil authority
- Marking and clearing minefields
- Closing financial obligations
- Pre-redeployment activities
- Redeploying forces.

Notes

¹I. B. Holley

²Armee de terre francaise, *Exercice Action Exterieur*, Compiegne: L'ecole d'Etat Major, 1990, 36.

³Ibid., 37.

⁴I. B. Holley, Jr, "Concepts, Doctrines, Principles: Are You Sure You Understand These Terms?" Air University Review, July-August 1984, 90.

⁵William Mitchell, *Winged Defense: The development and possibilities of modern air power, economic and military*, Dover Publications Inc., Mineola, N.Y., 1988, 10.

⁶Ibid., 17.

⁷Timothy T Lupfer, *Leavenworth Papers No 4*, Combat Studies Institute, Leavenworth, Kansas, July 1981, 56.

Notes

⁸ Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*, March 1992, 120.

⁹ Ibid., 274.

¹⁰ Ibid., 12

¹¹ Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic thinking in the United States Air Force*, Vol.1, 1907-1960, Maxwell AFB, Ala.: Air University Press, 1989, 44.

¹² Air Force Manual 1-1, March 1992, Vol. 2, 209.

¹³ Ibid., 12.

¹⁴ Ibid., 24.

¹⁵ Ibid., 15

¹⁶ Ibid., 1.

¹⁷ Joint Pub 3-07: *Joint Doctrine for Military Operations Other Than War*, 1995, III 12- III 14.

¹⁸ Ibid., IV 6.

Chapter 5

Conclusions

In the early 1960s, the supplier of Mali's air arm was France and China. And thus, the first officers were trained in this country. From the 1970s, the Soviet Union started to deliver to the country, fighters and bombers, and trained the personal. By this time airmen knew only how to fight according to the Soviet Union "regulations."

From 1985, the situation changed, the United States became the principal supplier of Mali Air Force, and also the first in term of training. This changes brought a new concept by emphasizing operations other than war. It is time for Mali Air Force to take in account this new environment. It's time for this country to get an Air Force doctrine accordingly to the new environment.

The first section discussed the doctrines of small Air Force such as North Korea and Israel. The North Korean doctrine does not work, they try to combined the Russian air force doctrine and the Chinese unconventional warfare doctrine. There are the lack of flexibility, the indoctrination of the airmen. The technology change is not an important factor for North Korean doctrine. On the other hand, the Israeli Air Force Doctrine works pretty well with its innovation, flexibility etc.,. The only thing to avoid in Israeli doctrine is the political-military disintegration in Israeli grand strategy between the 1967 and 1973

wars. The end of this section, examined MOOTW as viewed by the United States military.

The second chapter described the current Armed Forces doctrine of Mali, which is an odd collection of parts from many different Air Forces that is blended into a general military doctrine. This doctrine does not take in account MOOTW, which is very important since Mali is involved in peacekeeping in Angola, Rwanda, Burundi, Zaire, Liberia, Western Sahara, Central Africa Republic. Mali needs an Independent Air Force because of the position of the country, the lack of means of transportation, the experience of the 1974 conflict against Burkina Faso. In order to manage all these useful operations, Mali needs an independent Air Force doctrine.

The third chapter, suggests a framework for Mali Air Force Doctrine. This framework is based on the Israeli Air Force Doctrine for the preparation of war and employment of Air Force. This part is important because based on the experience of the 1985 conflict against Burkina, even Mali won militarily the war, its Air Force did not do it very well. In this new doctrine, I also suggested to include a MOOTW part based on the United States MOOTW doctrine. This part is essential because it takes in account the new environment facing to Mali Air Force.

Those who are possessed of a definitive body of doctrine and of deeply rooted convictions upon it will be in a much better position to deal with the shifts and surprises of daily affairs than those who are merely taking short views, and indulging their natural impulses as they are evoked by what they read from day to day.

—Winston Churchill

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